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(54) OPTICALLY ACTIVE
1-ACYLOXY-3-CHLORO-2-PROPANOL, AND
PRODUCTION OF OPTICALLY ACTIVE
3-CHLORO-1,2-PROPANEDIOL

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(57) Abstract:

PROBLEM TO BE SOLVED: To simply obtain the subject compound high in optical purity and useful as a raw material for synthesizing medicines, agrochemicals and the like by allowing the cells of a specific microorganism and/or their preparation to act on a 1-acyloxy-3-chloro-2-propanone.

SOLUTION: The cells of a microorganism having an ability to stereo- specifically reduce the carbonyl group of a 1-acyloxy-3-chloro-2-propanone of formula I (R is an acyl) and/or the preparation of the cells is allowed to act on the compound of formula I to obtain a (S)-1-acyloxy-3-chloro-2-propanol of formula II or a (R)-1-acyloxy-3-chloro-2-propanol of formula III. A microorganism belonging to the genus Geotricum, Aureobasidium, Hortaea, Rhodotolura, Pichia or Hanseniaspora is preferable.

